

REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the Official Action dated 28 October 2003. Responsive to the rejections made in the Official Action, Claims 1-3 have been amended to clarify the language thereof and the combination of elements which form the invention of the subject Patent Application.

In the Official Action, the Examiner noted some confusion with respect to the Declaration submitted with the Application. The Declaration identifies Applicant's residence as being in the City of Taipei Hsien in the Country of Taiwan, Republic of China. It is believed that the Declaration, as originally filed, complies with 37 C.F.R. § 1.63(c)(1), as separate mailing and residence addresses are only required if the inventor lives at a location which is different from where the inventor customarily receives mail. Applicant has indicated on the originally filed Declaration that the address where Applicant customarily receives mail is his residence address.

In the Official Action, the Examiner objected to the Drawings as failing to comply with 37 C.F.R. § 1.84(p)(4), because the reference numeral "50" was used to designate more than one element.

Corrected Formal Drawings of Figs. 2 and 3 are attached to this Amendment. In addition to the reference numeral "50" being utilized to designate both the power switch circuit and the output conversion circuit in Fig. 3, the reference numeral "50" was apparently also utilized to additionally designate the push-button switch. Therefore, Fig.

2 has been corrected to properly designate the push-button switch with the reference numeral --30--, and in Fig. 3, the power switch circuit has now been properly designated with the reference numeral --60--. Accordingly, it is now believed that the Drawings comply with 37 C.F.R. § 1.84(p)(4).

In the Official Action, the Examiner objected to the Specification due to the language of the Abstract. Accordingly, the Abstract has been amended to correct the language thereof, as well as several discrepancies found in the circuit description in the Specification. No new matter has been added by these changes.

In the Official Action, the Examiner rejected Claims 2 and 3 under 35 U.S.C. § 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner indicated several limitations which lack proper antecedent basis.

Claims 1-3 have been amended to insure that all of the limitations have a proper antecedent basis. It is now believed that Claims 1-3 particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

In the Official Action, the Examiner rejected Claims 1 and 2 under 35 U.S.C. § 103, as being unpatentable over May, U.S. Patent #5,382,799.

Before discussing the prior art relied upon by the Examiner, it is believed beneficial to first briefly review the structure of the invention of the subject Patent Application, as now claimed. The invention of the subject Patent Application is directed

to a portable UV detector that has a simple operation. The detector includes a cylindrically shaped main body having a through bore extending between opposing ends of the main body. The main body has a display window formed through one side portion thereof and is in open communication with the through bore. A through opening is formed in a side portion displaced from the display window and in open communication with the through bore. The detector includes a filtering lens transmissive to UV radiation mounted on one end of the main body and a screw plug on the opposing end of the main body. An enclosure is disposed behind the screw plug and defines a battery chamber. The UV detector includes a longitudinally extended printed circuit board disposed in the through bore. The printed circuit board has (a) a light detection circuit including a light detector disposed adjacent one longitudinal end of the printed circuit board and beneath the filtering lens, (b) a power circuit having a first output connected to the light detection circuit and a second output, the power circuit including a push-button switch mounted on the printed circuit board and extending through the through opening of the main body, and (c) an output conversion circuit connected to the first output of the power circuit and having an input terminal connected to the light detector. The UV detector includes a plurality of batteries housed in the battery chamber behind the screw plug and electrically connected to the power circuit to provide an operating voltage to the first output for powering the output conversion circuit and the light detection circuit responsive to operation of the push-button switch. The UV detector includes a display module

mounted in the display window and has a plurality of display segments arranged to present a graphical display. One of the plurality of display segments is connected to the second output of the power circuit for energization thereof responsive to the operation of the push-button switch. A remaining portion of the plurality of display segments are connected to the output conversion circuit for respective energization thereof responsive to detection of predetermined levels of UV radiation. By that arrangement, a very compact and easy-to-use portable UV detector is provided. In addition to having an easy-to-interpret graphical display, the graphical display incorporates a "power on" indication via a single segment which is coupled to a second output of the power circuit.

In contradistinction, the May reference discloses an ultraviolet intensity meter having an optical stack 37 at one end thereof to focus impinging UV light on a detector 38. The output of the detector 38 is coupled to a signal conditioning circuit 39 which in turn provides an output to an analog-to-digital converter 40 that provides an output to the display 43. Power is supplied from a battery 44 which is coupled to a power switching circuit 45 that is controlled by a timer 47 responsive to operation of a push-button switch 46. However, nowhere does the reference disclose or suggest a printed circuit board having a light detector disposed adjacent one longitudinal end thereof, or one of the plurality of display segments being connected to the second output of the power circuit for energization thereof responsive to the operation of the push-button switch, to thereby give a "power on" indication. Further, as defined in now amended Claims 2 and 3, the

invention of the Patent Application provides particular circuit arrangements in the power circuit and light detection circuit that is neither disclosed nor suggested in the May reference. Therefore, the May reference cannot make obvious the invention of the subject Patent Application, as now defined in the amended Claims.

In the Official Action, the Examiner rejected Claim 3 under 35 U.S.C. § 103, as being unpatentable over May and further in view of Leber, et al., U.S. Patent #4,704,535. The Examiner admits that the May reference does not disclose the power circuit or signal conditioning circuit, but concludes that the choice of circuitry for the signal conditioning circuit is within the ordinary skill in the art, and refers to Leber, et al. for such circuitry. The Examiner states that the Leber, et al. reference discloses a light detection circuit for a UV detector having a plurality of resistors that form a voltage divider that are also connected to the light detector at a comparator circuit.

It is respectfully submitted that the Leber, et al. reference discloses a pair of comparators 134 and 136 which respectively receive reference voltage levels through a voltage divider formed by resistors 140, 141, and 142 that are connected between the positive battery terminal and the ground reference terminal. The photo-detector 110 responds to ultraviolet radiation by delivering energy through the diode 114 to the series resistor banks 115 and 122 to comparators 134 and 136. Therefore, the reference fails to disclose a plurality of resistors forming a voltage divider circuit connected in series with the light detector, as now claimed. Further, the reference fails to disclose each

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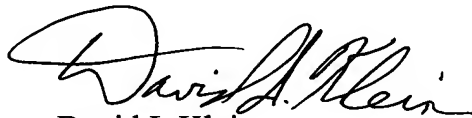
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comparator having an output terminal respectively connected to a pin corresponding to the remaining portion of the plurality of display segments of the display module, as claimed. Therefore, it is believed that the combination of May and Leber, et al. cannot make obvious the invention of the subject Patent Application, as now claimed.

For all of the foregoing reasons, it is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,

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